REMARKS

I. Introduction

Claims 1 to 8 are currently pending in the present application. Claims 1, 4 and 5 have been amended. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration of the present application is respectfully requested.

II. Rejections of Claims 1 to 8 under 35 U.S.C. § 112

Claims 1 to 8 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite.

With respect to claims 1 and 5, the Examiner asserts that there is insufficient antecedent basis for "the accessed command." In response, claims 1 and 5 have been amended herein without prejudice to provide antecedent basis for "the accessed command," thereby obviating the present rejection.

With respect to claims 5 to 8, the Examiner asserts that it is unclear what is being claimed. While Applicants do not agree with the merits of the rejection, to facilitate matters, claim 5 has been amended herein without prejudice to obviate the present rejection.

In view of the foregoing, withdrawal of these rejections is respectfully requested.

III. Rejection of Claims 1 to 8 Under 35 U.S.C. § 103(a)

Claims 1 to 8 were rejected under 35 U.S.C. § 103(a) as unpatentable over U.S. Patent No. 6,567,335 ("Norman"). Applicants respectfully submit that Norman does not render unpatentable the present claims for the following reasons.

In rejecting a claim under 35 U.S.C. § 103(a), the Examiner bears the initial burden of presenting a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S.P.Q.2d 1955, 1956 (Fed. Cir. 1993). To establish *prima facie* obviousness, three criteria must be satisfied. First, there must be some suggestion or motivation to modify or combine reference teachings. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988). This teaching or suggestion to make the claimed combination must be found in the prior art and not based on the application disclosure. *In re Vaeck*, 947 F.2d 488, 20 U.S.P.Q.2d 1438 (Fed. Cir. 1991). Second, there must be a reasonable expectation of success. *In re Merck & Co., Inc.*, 800 F.2d 1091, 231 U.S.P.Q. 375 (Fed. Cir. 1986). Third, the prior art reference(s) must teach or suggest all of the claim limitations. *In re Royka*, 490 F.2d 981, 180 U.S.P.Q.

580 (C.C.P.A. 1974). It is respectfully submitted that Norman et al. do not disclose or suggest all of the features recited in independent claim 1 or independent claim 5.

Claim 1 has been amended to recite "a first buffer memory . . . to which . . . , responsive to a request for a program command which is accessed in the programmable memory, a plurality of commands following the accessed command in the programmable memory are written." The Office Action refers to input buffer (48) of Norman as allegedly disclosing the claimed "first buffer." However, nowhere does Norman disclose that, in response to a request for a command, a command following the requested command is written to the buffer (48). Indeed, nowhere does Norman disclose suggest this feature of claim 1.

Claim 1 has been further amended to recite that "the [requested] accessed command and the plurality of commands following the accessed command are simultaneously stored in sequential memory locations of the first buffer memory." With respect to the buffer (48), the Office Action asserts that "data stored in the buffer in sequential bits/blocks." However, Norman provides for inputting a single command (e.g., a Tag (19h) or a Tag (1a)) at a time from a Controller (36) to the buffer (48). Nowhere does Norman disclose that a requested command and a command following the requested command are stored simultaneously in the buffer (48). Indeed, nowhere does Norman disclose or suggest this feature of claim 1.

Claim 1 has been further amended to recite "a second buffer memory to which, responsive to a request for a datum which is accessed in the programmable memory, a plurality of data following the accessed datum in the programmable memory are written." The Office Action refers to buffer (52) of Norman as allegedly disclosing the second buffer. However, nowhere does Norman disclose that, in response to a request for a datum, a datum following the requested datum is written to the buffer (52). Indeed, nowhere does Norman disclose or suggest this feature of claim 1.

Claim 1 has been further amended to recite "wherein respective ones of the plurality of commands following the accessed command are associated with respective ones of the plurality of data following the accessed datum by corresponding respective sequential positions of the respective ones of the plurality of commands within the first buffer memory and the respective ones of the plurality of data within the second buffer memory; and wherein, based on the association, each of the respective ones of the plurality of data is processed in accordance with the respective datum's associated command." The Office Action asserts that the mere presence of a command in one buffer and data in another buffer

discloses an association of the command and the data. However, as explained above, Norman does not disclose a plurality of commands in sequential positions of a buffer, and therefore does not disclose or suggest an association of respective ones of a plurality of commands with respective ones of a plurality of data by corresponding respective positions of the commands and the data in their respective buffers. Furthermore, Norman does not disclose or suggest that, based on an association by respective sequential position, respective ones of a plurality of data are processed in accordance with associated ones of the plurality of commands.

The present invention recited in amended claim 1 substantially reduces the search time for finding a data associated with a particular program command (instruction), by loading the particular program command (into a first buffer memory, using a first information line) and the associated data (into a second buffer memory, using a second information line) in corresponding sequential positions. (See, e.g., Specification, p. 4, l. 5-8). Accordingly, a particular program command (instruction) and an associated datum are associated with one another by corresponding sequential positions within the respective first and second buffer memories. In this manner, the present invention substantially reduces the conventional search time for finding a data associated with a particular command, since the sequential position automatically provides the association between the command and the connected data.

In contrast to the invention recited in amended claim 1, the disclosure of Norman does not involve command (instruction) access; instead, Norman merely discloses a memory controller strategy for data reading, which strategy involves address mapping and cache in connection with tag information. In particular, Norman discloses selective reading of data from either a memory device or the control register depending on the tag data; there is simply no program command (instruction) access request in the disclosure of Norman. The "commands" mentioned in Norman refers to the commands issued by the memory controller for the memory operation manager, but these commands have nothing to do with the program command access requests recited in claim 1. Norman indicates that when a special Tag is present on a Tag bus (40), a respective output on a data bus (42) is generated, i.e., the "commands" on bus (40) directly control the data flow as to address mapping and memory control. For example, in col. 6, lines 15-22, it is stated that when a Tag (19h) is present on the Tag bus (40), data is read out of the device, and when a Tag (1a) is on the Tag bus (40), the contents of a control register are read out of the device. Thus, these "commands" merely control data flow. Taken as a whole, in contrast to the claimed subject matter, Norman

merely discloses a conventional memory control strategy in which, if there is a jump command, associated data is written. In particular, if a special Tag is provided, a corresponding reaction in buffer (52) is established. Norman does not disclose or suggest storing a plurality of program commands in a first buffer and a plurality of data in a second buffer in positions by which the program commands and the data are associated for processing of the data according to associated ones of the program commands.

For at least the foregoing reasons, Norman does not teach or suggest all of the claimed features of amended claim 1. Claim 5 has been amended to recite substantially similar features as the above-recited features of amended claim 1. Accordingly, Norman does not disclose or suggest all of the features recited in amended claim 5 for the same reasons set forth above in support of the patentability of amended claim 1.

For at least these reasons, it is respectfully submitted that Norman does not render unpatentable claims 1 and 5, as well as their dependent claims 2-4 and 6-8.

In view of the foregoing, withdrawal of this rejection is respectfully requested.

IV. Conclusion

In light of the foregoing, it is respectfully submitted that all of the presently pending claims are in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

Respectfully submitted,

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